

Table. NSQIP Estimated Risk vs Observed Outcomes

Death	Any complication	Pneumonia	Cardiac complication	Surgical site infection	Urinary tract infection	VTE	Renal failure	Return to OR	Serious complication
3.06%	15.91%	1.84%	2.07%	2.24%	1.41%	0.99%	1.13%	7.92%	12.35%
2.79%	21.73%	2.79%	4.46%	4.46%	2.51%	0.84%	1.95%	9.75%	20.89%

Top Row: estimated risk; Bottom Row: observed outcomes.

case-specific risk for each of 10 predicted postoperative complications was calculated using this tool. We then compared the cumulative estimated risk to our actual observed outcomes.

Results: There were 914 consecutive vascular procedures performed in a hospital setting of which only 359 procedures met inclusion criteria. The risk calculator closely approximated the observed mortality rate and slightly underestimated the observed outcomes in eight of the other 10 outcome categories. Alternatively, the tool significantly underestimated the observed risk for serious complications.

Conclusions: In our study, the NSQIP tool would have proved useful for purposes of predicting complications, including death, and informed patient consent. Underestimation of serious complications may reflect our institution specific outcomes rather than a deficiency in the NSQIP calculator. Studies with large vascular patient cohorts are necessary to more accurately evaluate this tool and or create a more comprehensive one specific to vascular patients.

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C8g: Poster Session—Peripheral Arterial Disease

PS146.

The Effects of Peripheral Arterial Disease on Mortality in Patients with End-Stage Renal Failure

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Objectives: Peripheral arterial disease (PAD) has been shown to be an independent determinant of all-cause mortality in patients with chronic renal failure (CRF). However, a paucity of data exists quantifying the severity of the interaction between PAD and CRF. Our study was designed to investigate the presence and significance of PAD on mortality in the setting of CRF.

Methods: We examined 25,664 adult patients listed for an isolated primary kidney transplant within the United Network of Organ Sharing database in a retrospective manner. Multivariate Cox regression was used to model the relative risk (RR) of 5-year mortality with respect to PAD and predialysis and dialysis patients. Multivariate logistic regression was used to model waiting list survival at 30 and 90 days, and at 1, 3, and 5 years to assess the interaction between PAD and dialysis. Covariates included age, gender, ethnicity, primary cause of CRF, coronary artery disease (CAD), dialysis, and PAD.

Results: Relative to patients without PAD and not on dialysis (PAD-Dial-, $n = 4860$), a 31% increase in the risk of death was observed in PAD+Dial- patients ($n = 308$), a 95% increase in the risk of death for PAD-Dial+ patients ($n = 19,002$), and a 190% increase in the risk of death for PAD+Dial+ patients ($n = 1494$). As an independent covariate, PAD was associated with a 47% increase in the risk of death, whereas CAD was associated with a 24% increase. Additionally, the combined effects of PAD and dialysis on the risk of mortality increased with time.

Conclusions: To our knowledge, this is the first study to demonstrate that in the setting of CRF, PAD is an independent risk factor for mortality and increases the risk of death synergistically with concomitant dialysis therapy. Additionally, we show that PAD is associated with a greater RR of mortality than moderate CAD. Early diagnosis and modification of PAD or CRF risk factors in patients with CRF or PAD, respectively, should be considered in the management of patients at risk for both.

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PS148.

The Impact of Vein Harvesting Technique on Wound Complications and Graft Patency After Infrainguinal Arterial Bypass

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Objectives: To investigate the impact of vein harvesting technique (VHT) on wound complications and graft patency after infrainguinal arterial bypass.

Methods: The Vascular Quality Initiative (VQI) database was used to review vein harvest technique of all patients undergoing single-segment great saphenous vein (GSV) graft infrainguinal arterial bypass from 2003 to 2013. Patients were assigned to three groups according to the VHT used (continuous incision, skip incision, and endoscopic). Multinomial logistic regression was performed to estimate group assignment propensity scores. Propensity score adjustment was included in multivariate analysis of surgical site infection (SSI) and graft primary patency.

Results: A total of 5066 patients underwent single-segment GSV graft infrainguinal bypass. The VHT was continuous incision in 48.6%, skip incision in 39.7%, and endoscopic in 12.7%. SSI rates did not differ significantly among the groups (continuous, 4.7%; skip, 4.0%; endoscopic, 3.4%; $P = .278$). On multivariate analysis, there was no difference in discharge primary patency among the three groups. The 1-year primary patency rates were 66.2% for continuous, 68.6% for skip, and